

規 格 承 認 書

PECIFICATION FOR APPROVAL

客 戶
CUSTOMER : _____

項 目
ITEM : 贴片塑壳內磁喇叭 _____

型 號
TYPE : GSPK1504S-8R0.8W _____

描述
DESCRIPTION : 15*15*4.0mm 8ohm 0.8W S.P.L: 92dB+/- 3dB _____

客戶料號
CUSTOMER NO. : _____

規 格 書 號
SPECIFICATION NO.: _____

版 本
EDITION NO. : V1.0 _____

日 期
DATE : 20 _____

客戶承認

CUSTOMER CONFIRM AND SIGN

檢查 TESTED BY	審核 CHECKED BY	承認 APPROVED BY

東莞市贏海電子有限公司

DONGUAN INGHAI ELECTRONICS CO.,LTD

製作 ISSUED BY	審查 CHECKED BY	確認 APPROVED BY
周明	刘承成	

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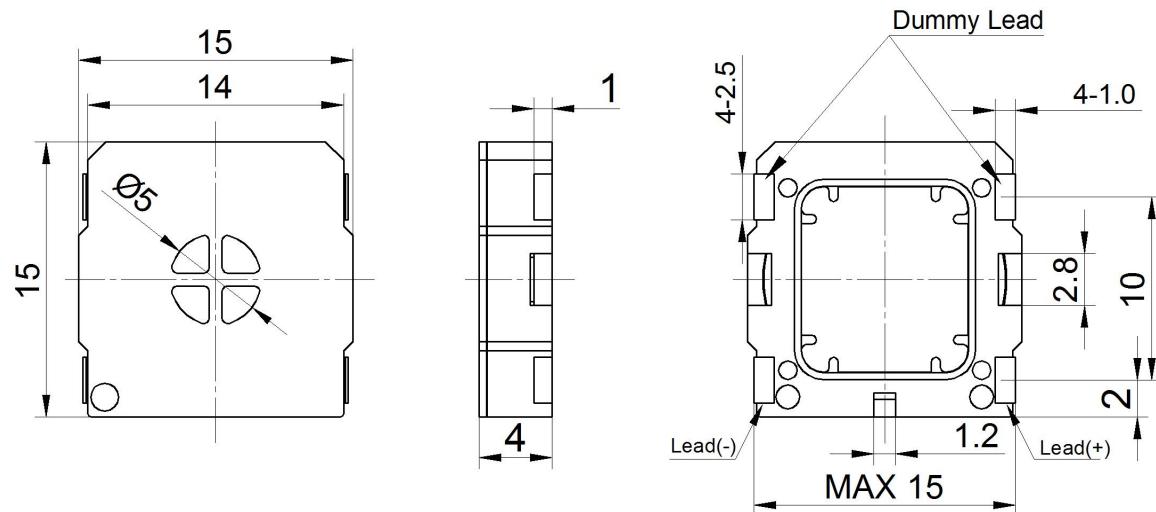
Technical Terms:

Test Basic State: Temp(20 ± 2 °C), Humidity(40~70%RH), Air pressure(860~1060hPa).

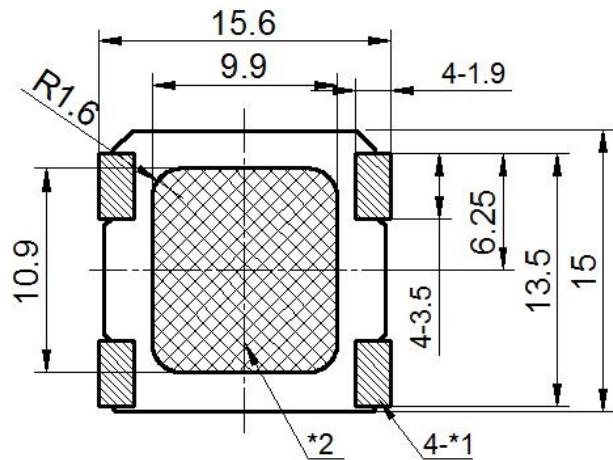
DIMENSIONS (UNIT: mm)

Tolerance: $\pm 0.5\text{mm}$ Except Specified

No.	Technical terms	Value
1	Rated Power	0.8W
2	Max Input Power	1.0W
3	Rated Impedance	$8\Omega \pm 20\%$
4	Resonance Frequency	$800 \text{ Hz} \pm 20\%$
5	Sound Output at 0.1m 0.8W	$92 \pm 3 \text{ dB}$ at 1k, 1.6k, 2.0k & 3.2kHz Average
6	THD at 0.8W/2.2kHz	$\leq 10\%$
7	Buzzes & Rattles	Must be normal at sine wave 2.37Vrms
8	Operating Temperature	-40 ~ +105 °C
9	Storage Temperature	-40 ~ +105 °C
10	Weight	1.7g
11	RoHS	Yes



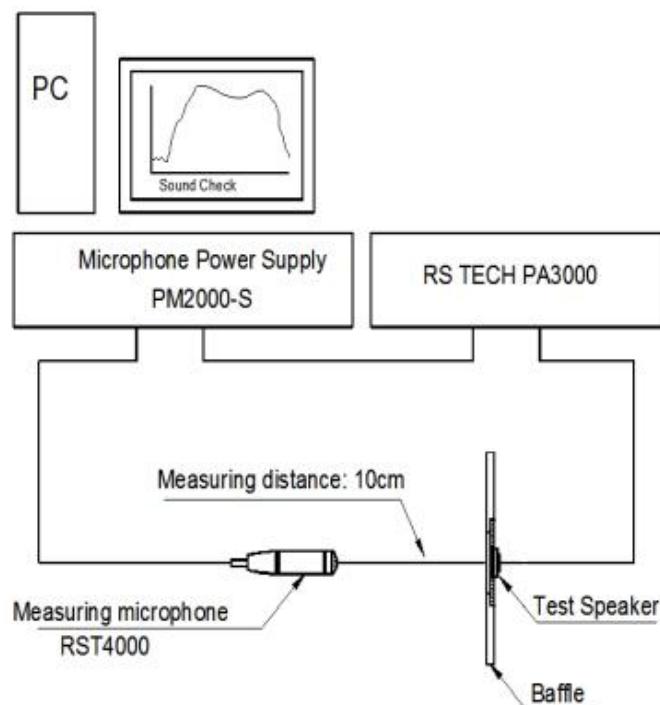
Recommended Land Pattern Dimensions



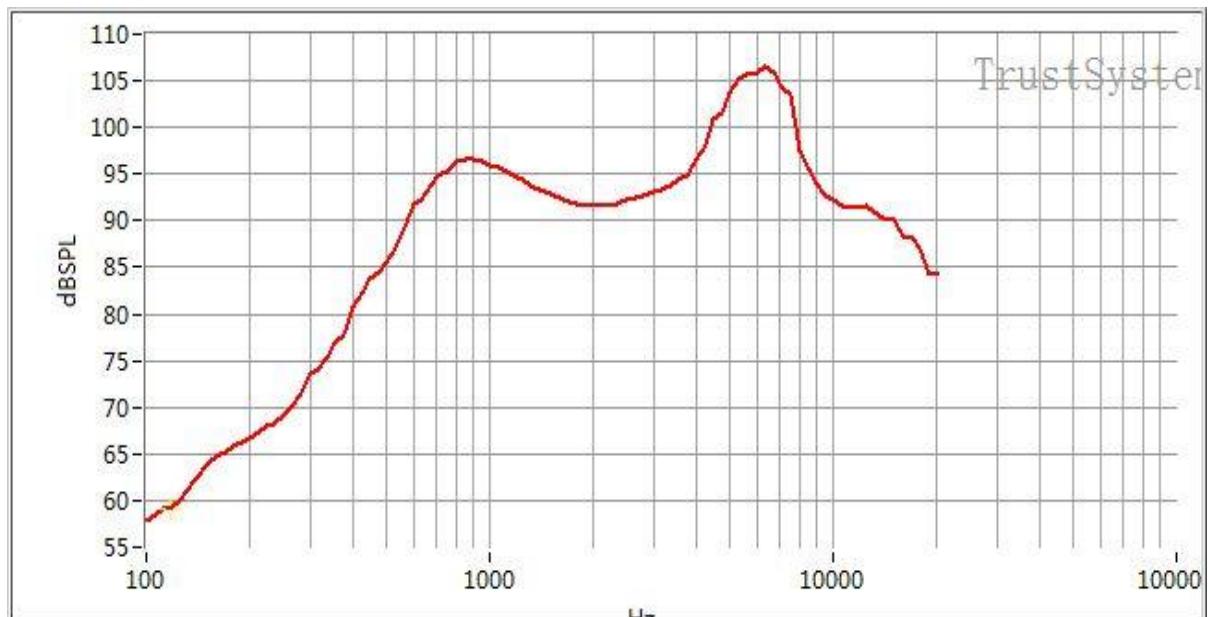
NOTE

1. Land pattern*1
 2. Avoid any pattern on the shade area
- *2 of PC board is highly recommended

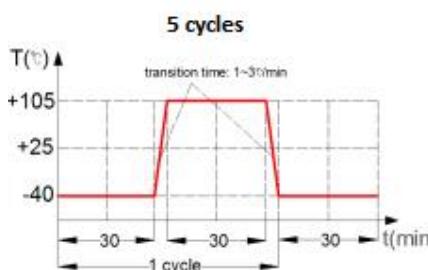
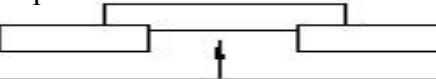
TEST METHOD:



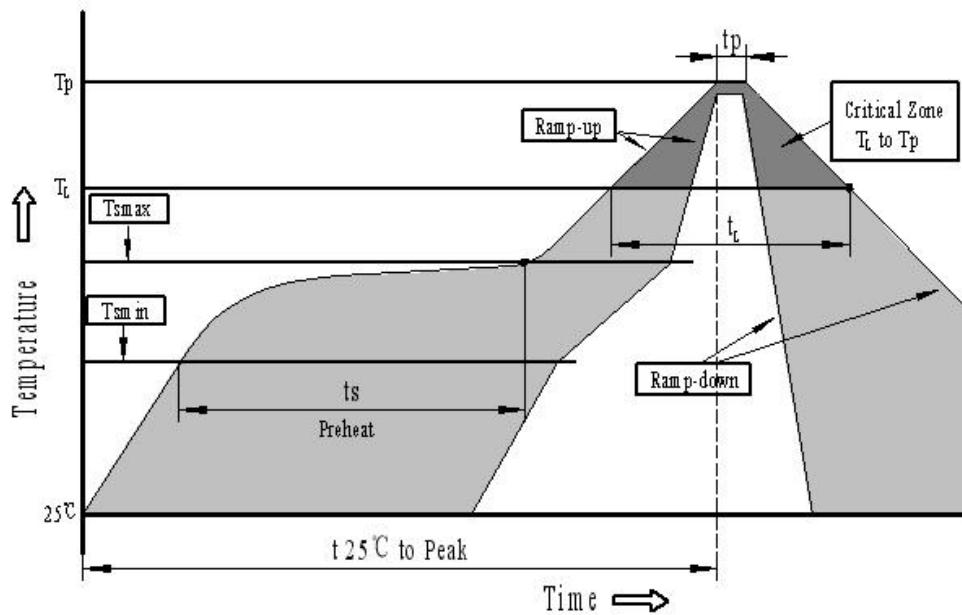
FREQUENCY RESPONSE:



RELIABILITY TEST:

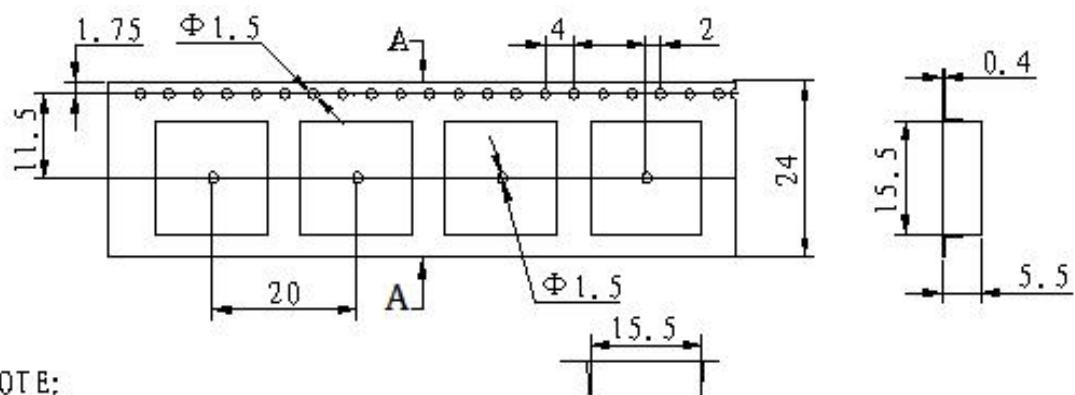
No.	Item	Test condition	Evaluation standard
1	High temp.	+105±2 °C for 96hrs	
2	Low temp.	-40±2 °C for 96hrs	
3	Humidity	40±5 °C, 93(+2/-3)%RH, for 96hrs	
4	Temperature cycling		After being placed for 2 to 4hrs at room temp, the product shall meet specifications, except the SPL should be in ±5dB compared with initial one; F0 should be in ±20%Hz compared with initial one.
5	Vibration test	1.52mm amplitude, sweep time is 1 minute with 10 to 55Hz and 55 to 10Hz of vibration frequency to each of 3 perpendicular directions for 2 hrs.	
6	Drop test	The product shall be dropped from the height of 70cm onto 10mm thick wooden board each 3 times in 3 axial directions(x,y&z) (a total of 9 times).	After the test, the product shall meet specifications.
7	Lead pull	The product shall be pushed with a force of 9.8N for 10±1 seconds behind the part. 	After the test, the product shall meet specifications without any degradation in appearance and performance.
8	Endurance test	Rated power, pink noise for 96hrs	After being placed for 2 hrs at room temp, the product shall meet specifications, except the SPL should be in ±5dB compared with initial one; F0 should be in ±20%Hz compared with initial one.
9	Max. Short Term power test	Max power, pink noise 1sec On, 100sec Off 60 cycles	After being placed for 2 hrs at room temp, the product shall meet specifications, except the SPL should be in ±5dB compared with initial one; F0 should be in ±20%Hz compared with initial one.
10	Recommended temp. Profile for Reflow Oven	Shown in Fig.1	After the test, the product shall meet specifications
Warranty: For a period of one year from date of manufacturer under normal operations.			

Recommended Temp. Profile for Reflow Oven (Fig.1)



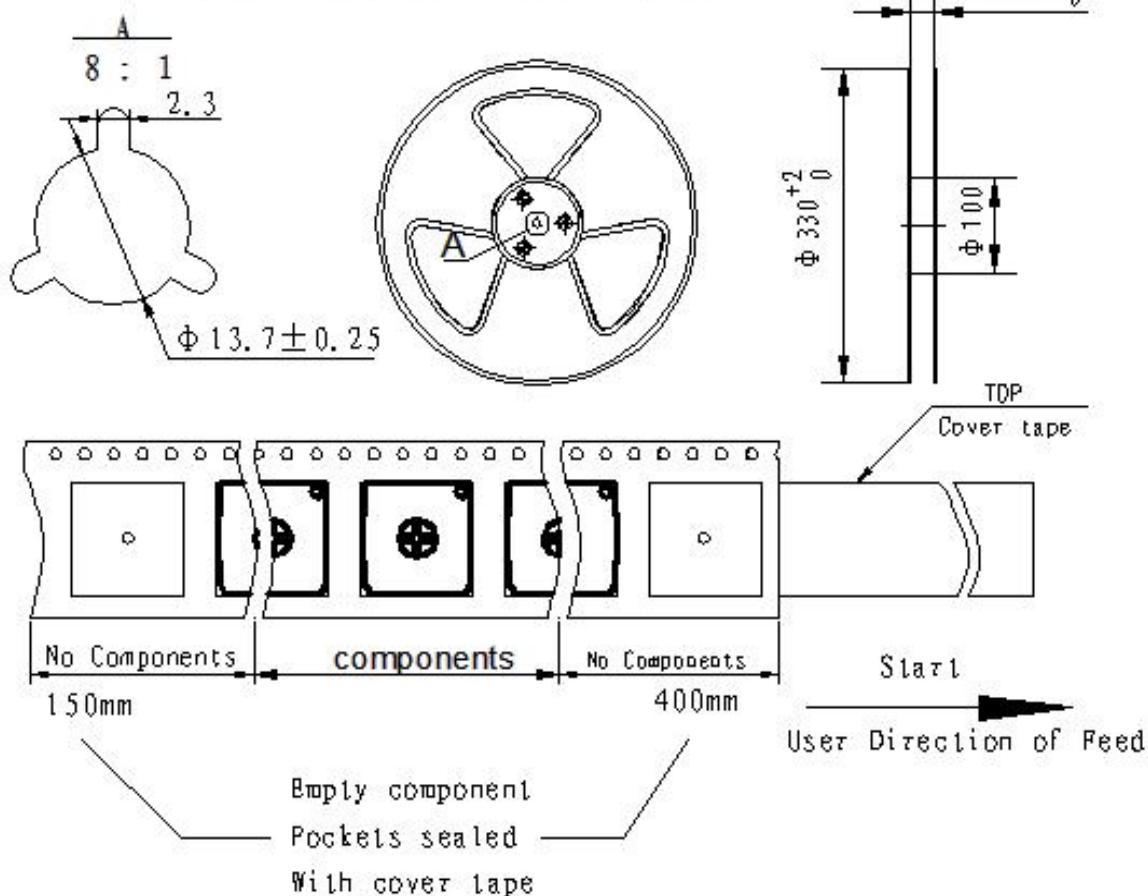
Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to T_p)	3 °C/second max.
Preheat	
-Temperature Min.($T_{S_{min}}$)	150 °C
-Temperature Min.($T_{S_{max}}$)	200 °C
-Temperature Min.(t_s)	60~180 seconds
$T_{S_{max}}$ to T_L	
-Ramp-up Rate	3 °C/second max.
Time maintained above:	
- Temperature(T_L)	217 °C
-Time(T_L)	60~150 seconds
Peak temperature(T_p)	245 °C+0/-5 °C
Time within 5 °C of actual Peak temperature (t_p)	6 seconds max.
Ramp-down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.
We suggest the customer do the reflow soldering once.	

PACKING:

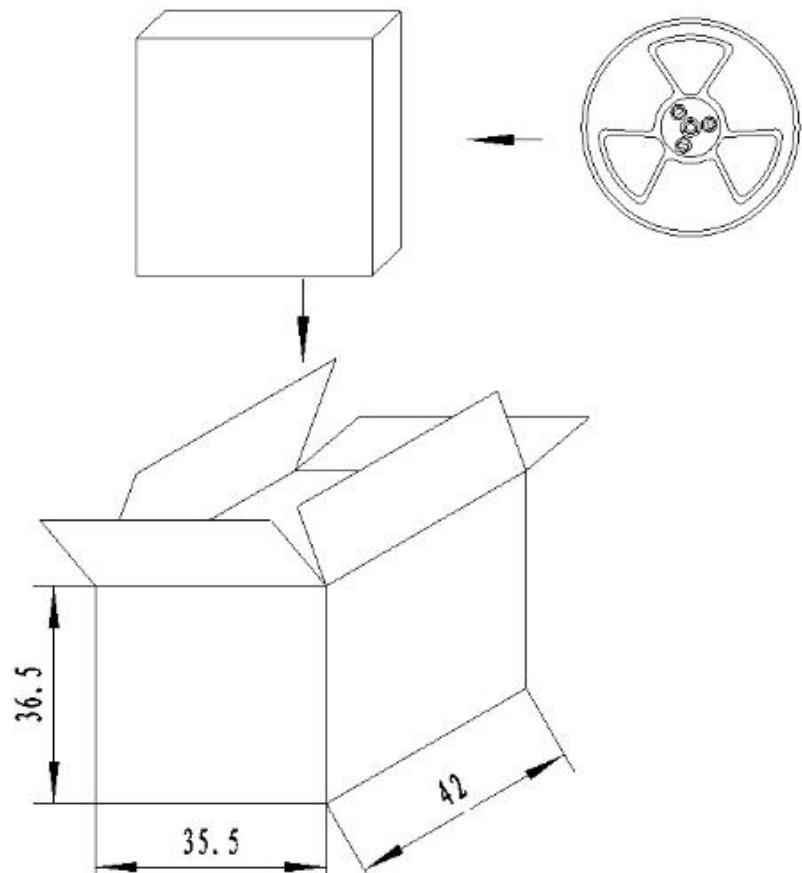


NOTE:

- 1.10 sprocket hole pitch cumulative tolerance $+\/-0.20\text{mm}$.
2. All dimensions meet EIA-481-2-A requirements.
3. Thickness: $0.4+\/-0.05\text{mm}$.
4. Component loaded per 13" reel: 600pcs.



PACKING:



NOTES:

- 1.600 PCS per box
2. Total 10 boxes per carton
3. Total 6000 PCS carton
4. Volume: $42 \times 35.5 \times 36.5$ cm